REMARKS

Claims 18-36 are pending in the present application. Claims 18, 23, and 28 are amended above. No new matter is added by the amendments. Entry is respectfully requested.

Claims 18-27 are objected to for informalities. The specification has been amended to clarify the description set forth in the claims. The subject matter clarified by the specification amendments, namely, the symmetrical nature of the source and drain, is illustrated in the drawings as originally filed. No new matter is introduced by the amendments. It is believed that the informalities are cured, and reconsideration of the claim objections is requested.

Claims 18-36 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language referred to by the Examiner has been amended such that it is believed that the rejections are overcome. Reconsideration is requested.

Claims 28-36 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tyson (U.S. Patent No. 5,317,181). Claims 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tyson in view of Bahraman (U.S. Patent No. 5,001,528). In view of the above amendments and the following remarks, the rejections are respectfully traversed, and reconsideration of the rejections is requested.

The present invention of amended claims 18-27 is directed to a semiconductor device comprising an insulating layer. An insular silicon region having first conductivity-type impurity ions is formed on the insulating layer. A source region having second conductivity-type impurity ions is formed at an end of the insular silicon region. A drain region having second conductivity-type impurity ions is spaced apart from the source region at the other end of the insular silicon region. An insular body region is formed in the insular silicon region, and is disposed at least partially between the source region and drain region. A channel is formed on the insular body region. A gate insulating layer is formed on the insular body region, and a gate conductive layer is formed on the gate insulation layer. A body contact region having first conductivity-type impurity ion is in contact with and connected to the source region and the insular body region. A

conductive layer is formed on the source region, the gate conductive layer, and the body contact region. A source electrode is formed on the conductive layer and is connected to the body contact region via the conductive layer. The source region and drain region have a symmetrical structure.

The present invention of amended claims 28-36 is directed to a semiconductor device having a silicon-on-insulator(SOI) structure. The device includes an insulating layer and an insular silicon region having first conductivity-type impurity ions formed on the insulating layer. A source region having second conductivity-type impurity ions is formed at an end of the insular silicon region. A drain region having second conductivity-type impurity ions is spaced apart from the source region at the other end of the insular silicon region. An insular body region is formed in the insular silicon region is disposed at least partially between the source region and the drain region. A channel is formed on the insular body region. A gate insulating layer is formed on the insular body region, and a gate conductive layer is formed on the gate insulating layer. A body contact region having first conductivity-type impurity ion is in contact with and connected to the source region and the insular body region. A conductive layer is formed on the source region, the gate conductive layer, and the body contact region. A source electrode formed on the conductive layer is connected to the body contact region via the conductive layer. The body contact region is not overlapped with the gate conductive layer.

These features of the invention are set forth in the amended claims. Specifically, the claims are amended to set forth that a source electrode is formed on the conductive layer and connected to the body contact region via the conductive layer and that conductive layer is formed on the gate conductive layer. These features, set forth in the amended claims, are neither taught nor suggested by either of the cited Tyson and Bahraman references.

Specifically, Tyson and Bahraman both fail to teach or suggest a source electrode formed on a conductive layer and connected to a body contact region via the conductive layer, as set forth in the amended claims. The Examiner refers to Tyson as disclosing the source electrode of the present invention, because a source electrode of a MOSFET is inherently connected to the

body contact region. In Tyson, salicide 26, which, according to the Office Action, may be analogous to the conductive layer of the present invention of claims 18 and 28, is formed on source region 14 and mesa regions 22, 24, which, according to the Office Action, may be analogous to the body contact region of the present invention of claims 18 and 28, and the salicide 26 is used to connect the mesa regions 22, 24 to the source 14, as shown in Figures 1 and 3 of Tyson (see column 3, lines 10-19). However, Tyson does not teach or suggest a source electrode formed on a conductive layer so as to be connected to the body contact region via the conductive layer, as set forth in the amended claims.

As illustrated in, for example, Figures 2A-2D and 4A-4D of the present application, a source electrode 210, 510 is formed on the conductive layer 170, 470 so as to be connected to body contact region 160, 461 via the conductive layer 170, 470 (see page 6, lines 3-13 and page 8, lines 16-26 of the present specification). In this manner, a separate body contact region in a body contact to connect the body contact region to the source electrode is unnecessary, and the area of the semiconductor device is therefore reduced (see page 2, lines 12-18 and page 10, lines 16-27 of the present specification). Tyson and Bahraman do not teach or suggest any structure which eliminates the necessity of a separate body contact region to connect a body contact region to a source electrode.

In addition, Tyson and Bahraman also fail to teach or suggest a conductive layer formed on a gate conductive layer, as also set forth in the amended claims. The Examiner refers to Tyson's salicide 26 as disclosing the conductive layer of the present invention. In Tyson, salicide 26, which may be analogous to the conductive layer of the present invention, is formed only on the source region 14 and mesa regions 22, 24 which, according to the Office Action, may be analogous to the body contact region of the present invention, as shown in Figure 3 of Tyson (see Tyson at column 3, lines 10-19 and column 3, line 54 through column 4, line 10). This is in contrast with the present invention of the amended claims, in which the conductive layer is formed not only on source region and the body contact region, but also on the gate conductive layer. The conductive layer of the present invention is illustrated, for example, in the application in Figures 2A-2D and 4A-4D. From the figures and the corresponding description, it can be seen

that the conductive layer 170, 470 is formed on the gate conductive layer 200, 500, as well as on both the body contact region 160, 461 and the source region 130, 430. Bahraman also does not teach or suggest a conductive layer formed on a gate conductive layer.

Since Tyson neither teaches nor suggests the invention set forth in the amended claims, it is believed that the claims are allowable over Tyson. Accordingly, reconsideration of the rejections of claims 28-36 under 35 U.S.C. § 102(b) based on Tyson is respectfully requested.

Bahraman also fails to teach or suggest the invention set forth in the amended claims. Since neither Tyson nor Bahraman teaches or suggests the claimed invention, there is no combination of the references which would provide such teaching or suggestion. Accordingly, since neither Tyson or Bahraman, taken alone or in combination, teaches or suggests the invention set forth in the amended claims, it is believed that the claims are allowable over Tyson and Bahraman. Therefore, reconsideration of the rejections of claims 18-27 under 35 U.S.C. § 103(a) based on Tyson and Bahraman is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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